

# **2005 ARTHRITIS IMPACT REPORT DESCRIBING THE BURDEN OF ARTHRITIS IN THE STATE OF KANSAS**



**KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT  
OFFICE OF HEALTH PROMOTION**

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## **TABLE OF CONTENTS**

### **ACKNOWLEDGEMENTS**

### **EXECUTIVE SUMMARY** 2

### **HIGHLIGHTS OF REPORT** 3

### **CHAPTER 1 – Introduction** 5

### **CHAPTER 2 – Arthritis In Kansas** 8

### **CHAPTER 3 – Who Is At Risk For Arthritis?** 9

### **CHAPTER 4 – How Does Arthritis Affect Individuals in Kansas?** 13

### **CHAPTER 5 – Professional Advice Regarding Weight Loss and Physical Activity** 19

### **CHAPTER 6 –Self-Management Programs - Knowledge and Practice** 20

### **CHAPTER 7 – What Is Being Done To Reduce the Impact?** 23

### **CHAPTER 8 - Access To Health Care** 26

### **APPENDICES** 29

### **REFERENCES** 30

## Executive Summary

Arthritis is known to be the leading cause of disability in the United States, limiting everyday activities for 16 million Americans,<sup>1</sup> creating a financial burden for the individuals, families and the nation. In 2003, 489,209 Kansans or 25% of the adult population were estimated to have doctor-diagnosed arthritis. In 1997, the estimated total costs attributed to arthritis and other rheumatic diseases in Kansas was \$828 million. As the population of Kansas continues to age, the number of individuals with doctor-diagnosed arthritis will continue to rise as will the cost associated with arthritis.

The Kansas Arthritis Program (KAP), housed in the Office of Health Promotion at the Kansas Department of Health and Environment was developed in the fall of 1999. The Kansas Arthritis Program facilitated the development of the statewide Arthritis Community Taskforce (ACT), a partnership of organizations and individuals with a strong interest in arthritis. ACT has developed a long-term statewide plan to address and reduce the impact of arthritis in Kansas with the overall goal to improve the quality of life for Kansans with arthritis. Obtainment of this goal is multifaceted, the key components include **increasing awareness** that arthritis can be managed, **implementing community based interventions** and **evaluation/surveillance** of the burden of arthritis in the state.

In order to reduce the burden of arthritis and to meet the goals and objectives of the Arthritis State Plan, it is necessary to understand who is effected by arthritis and how the disease affects the quality of life of the individuals. This report, using the Kansas Behavioral Risk Factor Surveillance System (BRFSS) data, attempts to describe the occurrence of arthritis in various population subgroups and its impact on the individuals struggling to live with it. The efforts that are being made to reduce the impact of arthritis in Kansas are described. Information on certain aspects of health care access among individuals with arthritis is also included.

The information contained in this report will provide an increased understanding of the problem of doctor-diagnosed arthritis in the Kansas population. This increased understanding will allow intervention programs to be further directed towards increasing the awareness about arthritis, its risk factors and the strategies to reduce disability caused by the disease, as well as the impact of intervention programs which provide self-management skills to the individuals dealing with the disease to help them in improving their quality of life.

## **Highlights of the Report**

### **A. General Facts About Arthritis in Kansas:**

1. In 2003, an estimated 489,209 Kansans (25%) reported having doctor-diagnosed arthritis and another 15% reported possible arthritis.
2. In 1997, total costs of \$828 million were attributed to arthritis and other rheumatic conditions in Kansas.
3. 48% of adults age 65 years and older and 19% of adults younger than 65 years reported doctor-diagnosed arthritis.
4. More women than men reported having doctor-diagnosed arthritis (28% vs. 21%, respectively).
5. A higher percentage of adults with an annual household income of less than \$25,000 reported doctor-diagnosed arthritis than those with higher income levels (29% vs. 22%, respectively).
6. Adults with less than a high school education, as well as, high school graduates (30% and 27%, respectively) have a higher prevalence of doctor-diagnosed arthritis than those with a college education.
7. Adults who were obese, as well as, those who were overweight have a higher prevalence of doctor-diagnosed arthritis (34% and 26%, respectively) when compared to those who were normal weight or underweight, (18%).
8. Adults who did not participate in any physical activity had a higher prevalence of doctor-diagnosed arthritis than those who participated in the recommended level of physical activity (35% vs. 20%, respectively).

### **B. How Does Arthritis Affect Individuals in Kansas?**

1. A higher percentage of adults with doctor-diagnosed arthritis reported their general health status to be fair or poor as compared to those without doctor-diagnosed arthritis (28% vs. 9%, respectively).
2. More than one third (38%) of adults with doctor-diagnosed arthritis reported limitations in their usual activities because of arthritis or joint symptoms.
3. 14% of the adults with doctor-diagnosed arthritis reported difficulty in performing usual activities due to pain every day during the past 30 days.
4. A higher percentage of adults with doctor-diagnosed arthritis reported disability as compared to those without doctor-diagnosed arthritis (39% vs. 10%, respectively).
5. A higher percentage of adults with doctor-diagnosed arthritis reported being inactive as compared to those without doctor-diagnosed arthritis (24% vs. 14%, respectively).
6. A higher percentage of adults with doctor-diagnosed arthritis were obese as compared to those without doctor-diagnosed arthritis (31% vs. 20%, respectively).
7. A higher percentage of adults with doctor-diagnosed arthritis reported that their mental health status (including stress, depression, and problems with emotions) was not good for 15-30 days during the past 30 days when compared to individuals without doctor-diagnosed arthritis (11% vs. 6%, respectively).

**C. Provision of Professional Advice to Individuals with Doctor-Diagnosed Arthritis Regarding Weight Loss and Participation in Physical Activity:**

1. Among those who reported being overweight or obese, more than two thirds (69%) had reported not being advised by a doctor or health professional to lose weight to help their arthritis or joint symptoms.
2. About half of the individuals (51%) reported that their doctor or health professional did not advise them to participate in physical activity or exercise to help manage their arthritis or joint symptoms.

**D. Knowledge Regarding Availability of Educational Courses or Classes to Teach Management of Problems Related to Arthritis or Joint Symptoms Among Adults with Doctor-Diagnosed Arthritis:**

1. About half (50.3%) of the individuals reported not being aware of the educational courses or classes available in their community which would teach them how to manage problems related to their arthritis or joint symptoms.
2. 98% of the individuals reported that a doctor or health professional had never advised them to participate in an Arthritis Foundation program to help manage problems related to their arthritis or joint symptoms.
3. 91% of the individuals reported that they had never taken an educational course or class to teach them how to manage problems related to their arthritis or joint symptoms.
4. 64% of the individuals reported not participating in physical activity or exercise to help manage problems related to arthritis or joint symptoms.
5. 97% of the individuals reported not participating in any support groups to help manage problems related to their arthritis or joint symptoms.

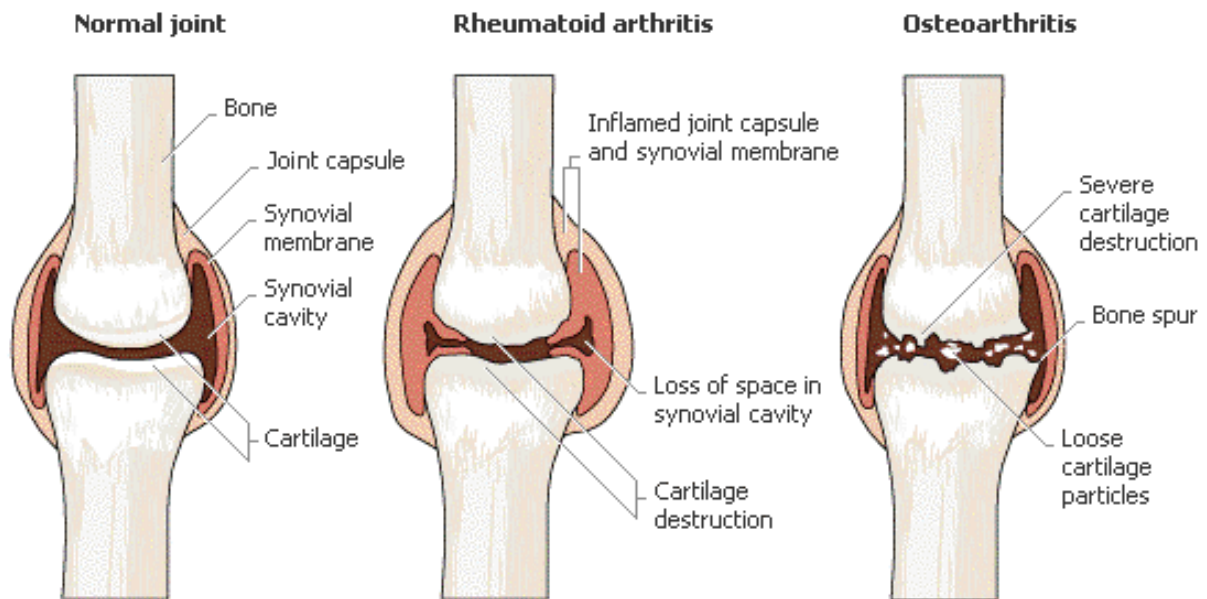
**E. Health Care Access among Kansas Adults with Doctor-Diagnosed Arthritis in 2003:**

1. General health care access facts:
  - 9% of the individuals reported not having health care coverage.
  - 8% of the individuals reported not having one or more personal doctors or health care provider.
  - 12% of the individuals reported not being able to see a doctor when needed during the past 12 months because of the cost.
2. Health care access among those who were younger than 65 years:
  - About 1 in 7 individuals (14%) reported not having any health care coverage.
  - 1 in 8 individuals (12%) reported not having one or more doctors or health care providers.
  - Almost 1 in 6 individuals (17%) reported not being able to see a doctor when needed during the past 12 months because of the cost.
3. Health care access among those who were 65 years and older:
  - A very small percentage of adults reported that they do not have health care coverage and do not have a personal doctor or health care provider.
  - About 4% of individuals reported not being able to see a doctor when needed because of the cost.

## CHAPTER 1: Introduction

The word “arthritis” derives its origin from Latin: “arth” meaning joints, and “itis” meaning inflammation. Arthritis is used as an umbrella term referring to more than 100 medical conditions affecting joints, surrounding tissues, and other connective tissues. The most common types are osteoarthritis, rheumatoid arthritis, and fibromyalgia.<sup>2</sup>

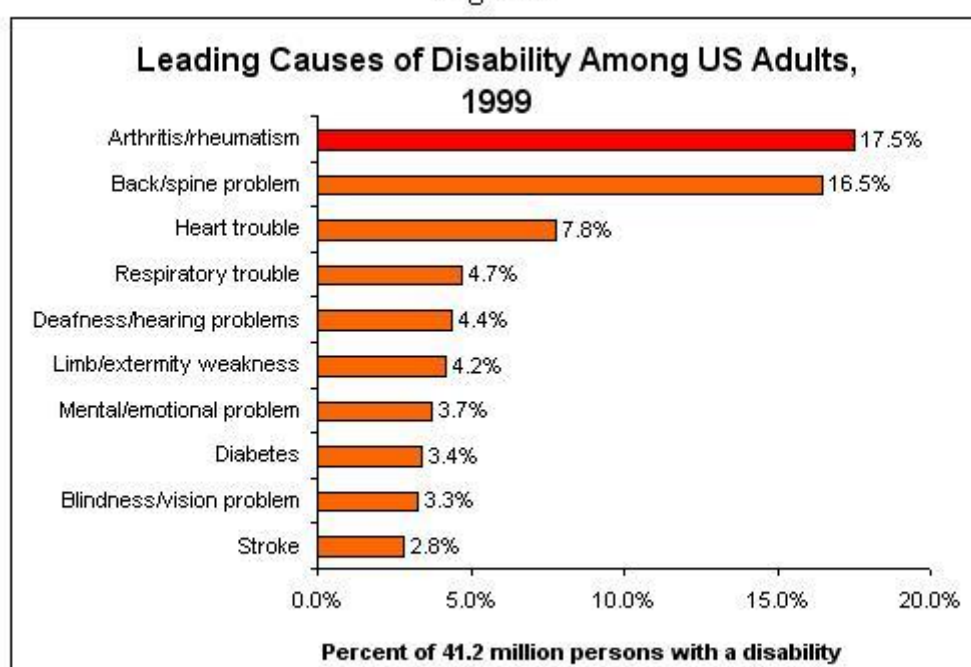
According to the Centers for Disease Control and Prevention (CDC), 43 million (about 1 in 5) American adults reported doctor-diagnosed arthritis and another 23 million reported possible arthritis in 2002, making arthritis one of the nation’s most common health problems.<sup>3</sup>



Source: Arthritis Foundation

Arthritis is known to be the leading cause of disability in the United States, limiting everyday activities for 16 million Americans,<sup>1</sup> creating a financial burden for the individuals, families and the nation. Each year in the United States, arthritis results in 750,000 hospitalizations and 36 million outpatient visits.<sup>4</sup> In 1997, the estimated total costs for people with arthritis and other rheumatic conditions in the United States was \$86.2 billion, \$51.1 billion in direct medical costs and \$35.1 billion in indirect medical costs.<sup>5</sup> The total costs attributed to arthritis and other rheumatic conditions in Kansas were \$828 million in 1997.<sup>5</sup> With the aging population the number of individuals with arthritis and disabilities are likely to increase, hence surveillance of arthritis prevalence and associated health conditions is useful in assessing the service needs of individuals with arthritis as well as planning and implementation of health promotion and disease prevention efforts. (Refer to Figure 1)

Figure-1



Source: CDC, Prevalence of Disabilities and Associated Health Conditions Among Adults-United States, 1999, *MJWR* 2001; 50(7): 120-5.

**Definitions:** For the purpose of surveillance estimates of arthritis CDC recommends using two categories of arthritis: (1) Individuals with doctor-diagnosed arthritis and (2) Individuals with possible arthritis.<sup>6</sup>

**Doctor-Diagnosed Arthritis:** Individuals who reported that they have been told by a doctor or health professional that they have some form of arthritis, osteoarthritis, rheumatoid arthritis, lupus, gout, or fibromyalgia.

**Possible Arthritis:** Individuals who reported that they had symptoms of pain, aching, or stiffness in or around a joint during the past 30 days, and these symptoms first began more than 3 months ago but were never told by a doctor or health care professional that they have some form of arthritis.



**Burden of Doctor-Diagnosed Arthritis in Kansas:** The purpose of this burden report is to provide a summary of:

- The prevalence of doctor-diagnosed arthritis in Kansas and in various sub-groups of the Kansas population
- The burden of arthritis risk factors in the Kansas population
- The effects of arthritis on the individuals with the disease
- Information on provision of professional advice to individuals with doctor-diagnosed arthritis regarding weight loss and physical activity
- Information on knowledge and practice of self-management strategies among individuals with doctor-diagnosed arthritis
- Information on efforts that are being made to reduce the impact of arthritis in Kansas.
- Health care access among individuals with doctor-diagnosed arthritis

2003 Kansas Behavioral Risk Factor Surveillance System (BRFSS) data have been utilized for this report. In addition, data from 2001 Kansas BRFSS were also utilized to assess quality of life issues among individuals with doctor-diagnosed arthritis.

Kansas BRFSS is a state based random digit dial telephone survey among the non-institutionalized population. It collects uniform, state-specific data on preventive health practices and risk behaviors that are linked to chronic diseases, injuries, and preventable infectious diseases in the adult population age 18 and older. Information on various aspects of arthritis was collected by using 2003 Kansas BRFSS: arthritis core questions, arthritis optional questions and arthritis state added questions.

**Questions used to identify doctor-diagnosed and possible arthritis:**

1. During the past 30 days, have you had any symptoms of pain, aching, or stiffness in or around a joint?
2. Did your joint symptoms first begin more than 3 months ago?
3. Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?

**Those who answered, “Yes” to question #3 were classified as having doctor-diagnosed arthritis.**

**Those who answered “Yes” to question #1 and #2 but “No” to question #3 were classified as having possible arthritis.**

## CHAPTER 2: Arthritis In Kansas

In this chapter, the prevalence of doctor-diagnosed arthritis, possible arthritis and the prevalence of doctor-diagnosed arthritis by geographic regions in Kansas are described.

**Prevalence of Arthritis in Kansas:** In 2003, doctor-diagnosed arthritis affected an estimated 489,209 Kansans, i.e., one out of every 4 adults (25%). As the Kansas population is aging the prevalence of doctor-diagnosed arthritis is expected to increase. Almost half of the adults (48%) who were 65 years and older reported doctor-diagnosed arthritis. About 1 in 5 adults (19%) who were younger than 65 years reported doctor-diagnosed arthritis.

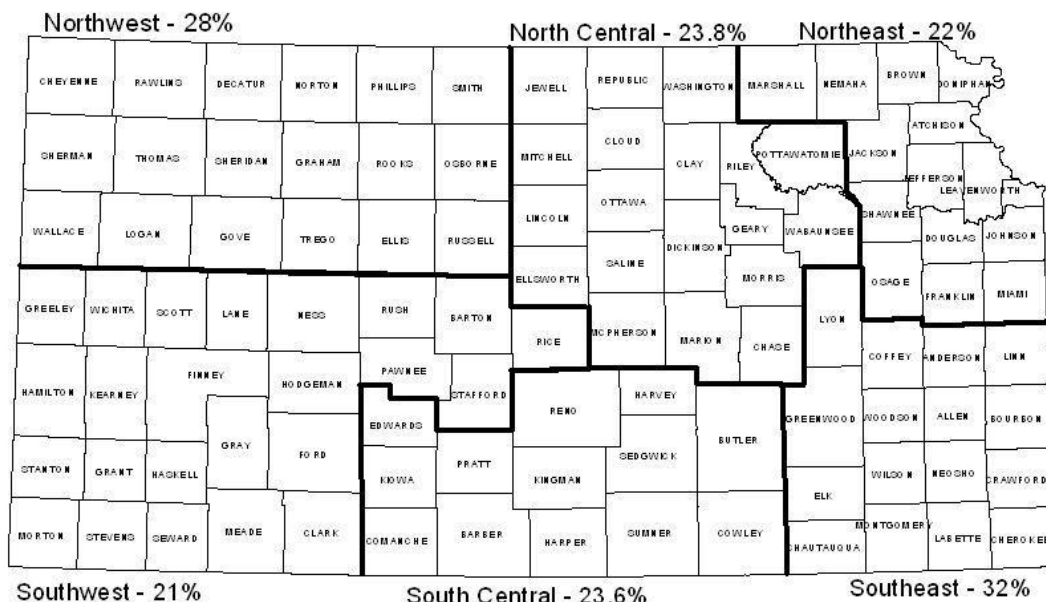
In 2003, possible arthritis was reported by 15% of the adults, nearly one out of every seven adults. About 9% of adults who were 65 years and older and 17% of adults who were younger than 65 years reported possible arthritis.

**Geographic Regions:** For the purpose of this report, the state of Kansas has been divided into six regions: Northwest, Southwest, North Central, South Central, Northeast, and Southeast regions. (For the list of counties included in each region refer to Table-1 on page-31). These are the Kansas public health regions. Though a statistically significant difference in the prevalence of doctor-diagnosed arthritis among the regions was not observed, the higher prevalence in the Southeast region should be further explored (Refer to Table –2 on page-31).

Regions in Kansas	Prevalence of Doctor-Diagnosed Arthritis
Northwest Region:	28%
Southwest Region:	21%
North Central Region:	23.8%
South Central Region:	23.6%
Northeast Region:	22%
Southeast Region:	32%

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) – 2003

Prevalence of Doctor-Diagnosed Arthritis by Public Health Regions in Kansas - 2003



## CHAPTER 3: Who Is At Risk For Arthritis?

In this chapter information regarding risk factors of arthritis and the burden of doctor-diagnosed arthritis in various demographic and risk groups is described.

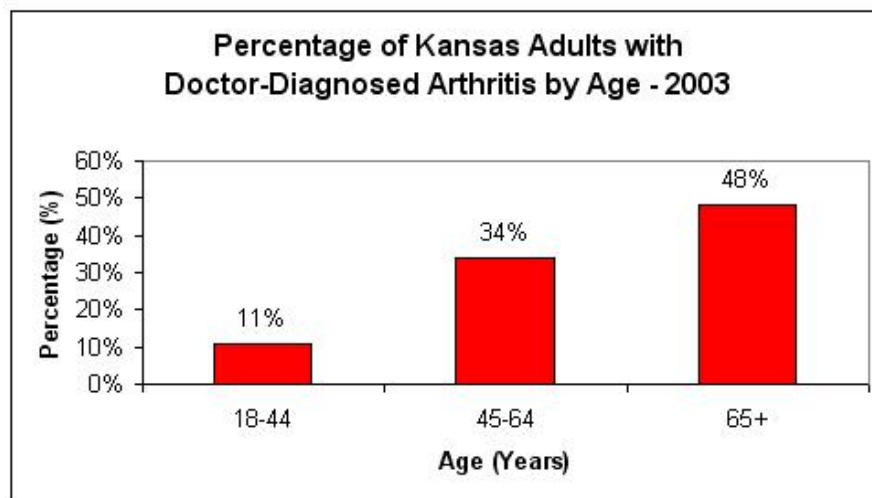
**Risk Factors:** A risk factor is a characteristic which if present increases the probability of a disease in a group of people when compared to a similar group without the risk factor.<sup>7</sup> Certain factors are known to be associated with a greater risk of arthritis. Risk factors for arthritis are broadly classified into two types: modifiable and non-modifiable.

It is important to examine non-modifiable risk factors as well as modifiable risk factors. This information is useful in the identification of high-risk groups for arthritis and assists in the planning and implementation of intervention efforts to reduce the prevalence of arthritis and its negative impact on their lives. Below is a discussion of several risk factors for arthritis from the public health perspective. (For additional information visit

[www.cdc.gov/arthritis](http://www.cdc.gov/arthritis) or [www.arthritis.org](http://www.arthritis.org))

**Age:** Age is associated with an increased risk of arthritis. About half of the elderly population (65 years and older) was affected by arthritis. Though the risk of arthritis increases with age, it is not only a disease of older individuals, but also effects individuals of all ages. About one in every nine people age 18-44 (11%), about one in every three people age 45-64 (34%) and about one in every two people age 65 and older (48%) are affected by arthritis in Kansas. (Refer to Figure-2 and Table-3 on page 32).

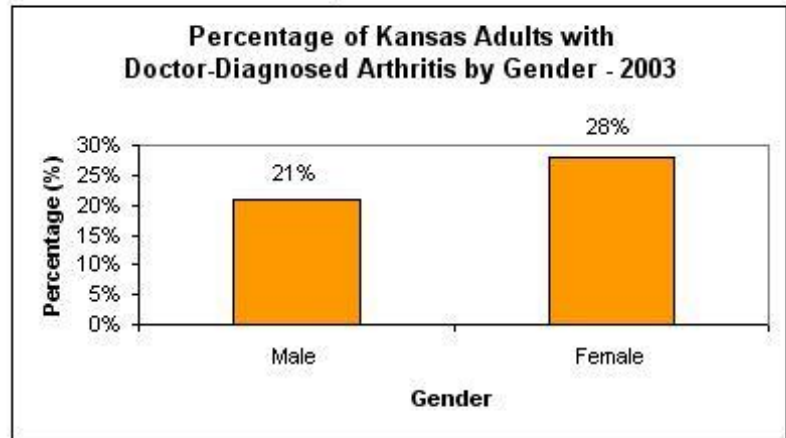
Figure-2



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Gender:** Doctor-diagnosed arthritis affects both men and women. However women are more often affected.<sup>8</sup> In Kansas, the prevalence of doctor-diagnosed arthritis was 28% among women as compared to 21% in men. (Refer to Figure-3 and Table-3).

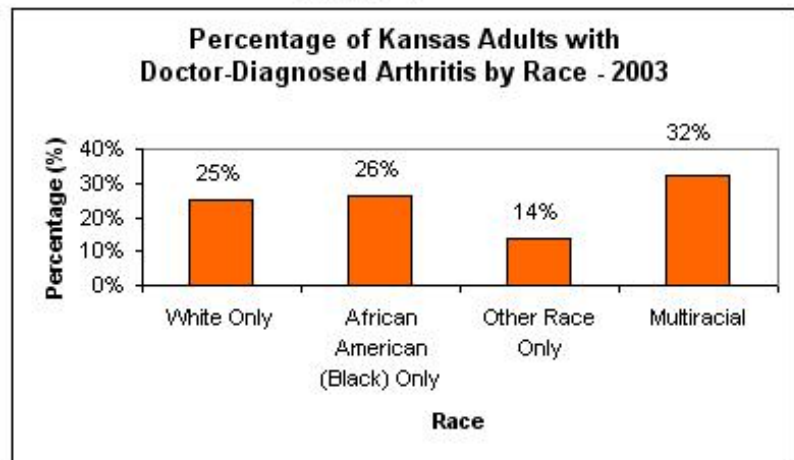
Figure-3



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Race:** All races are affected by doctor-diagnosed arthritis. In Kansas, the prevalence of doctor-diagnosed arthritis was 25% among Whites, 26% among African Americans, 14% among all other races (Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaskan Native, and any race other than White and Black) and 32% among multiracial individuals. (Refer to Figure-4 and Table-3).

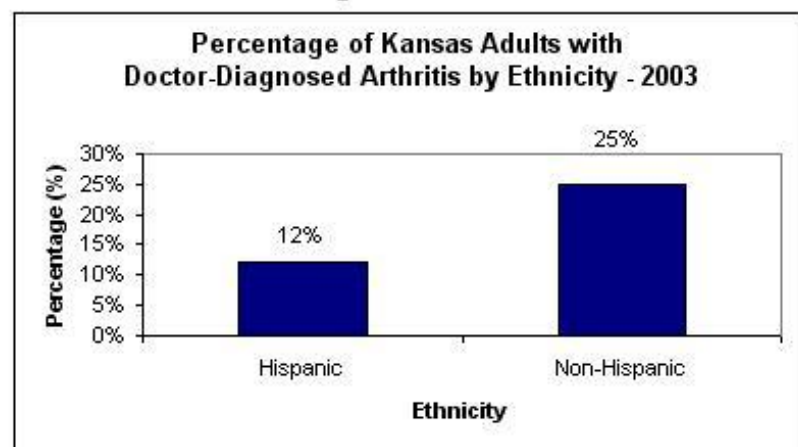
Figure-4



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Ethnicity:** Doctor-diagnosed arthritis affects both Hispanics and Non-Hispanics. The prevalence of doctor-diagnosed arthritis among Hispanics was 12% and 25% among Non-Hispanics. (Refer to Figure 5 and Table-3).

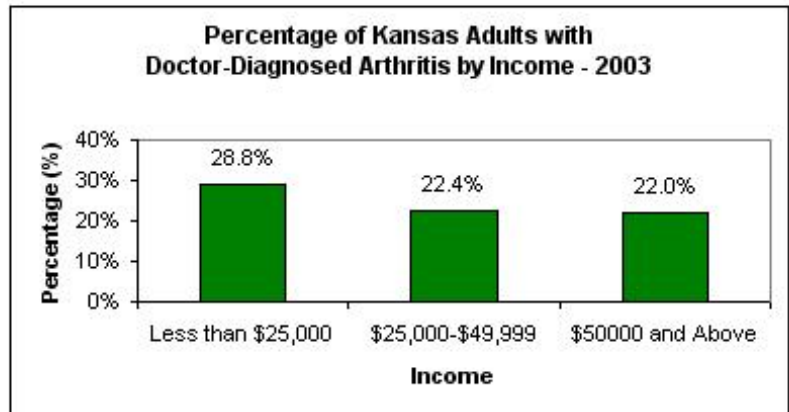
Figure-5



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Income:** The prevalence of doctor-diagnosed arthritis was higher (29%) among individuals whose annual household income is less than \$25,000 as compared to individuals with higher income levels (22%). (Refer to Figure-6 and Table-3).

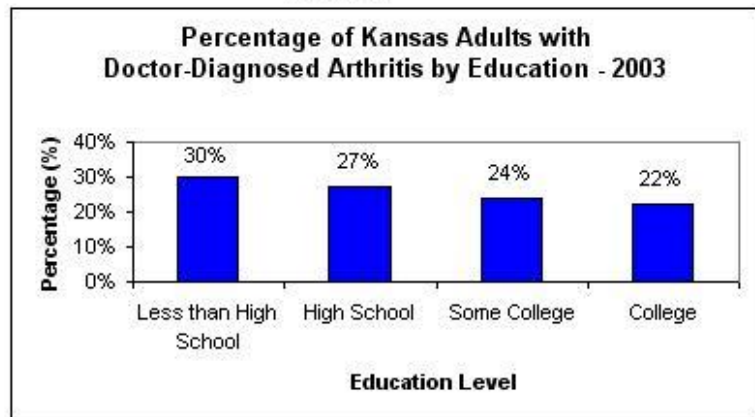
Figure-6



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Education:** The prevalence of doctor-diagnosed arthritis in different education groups ranged from 22% to 30%. Individuals with less than a high school education and high school graduates had a significantly higher prevalence of doctor-diagnosed arthritis (30% and 27% respectively) than individuals who were college graduates (22%). (Refer to Figure-7 and Table-3).

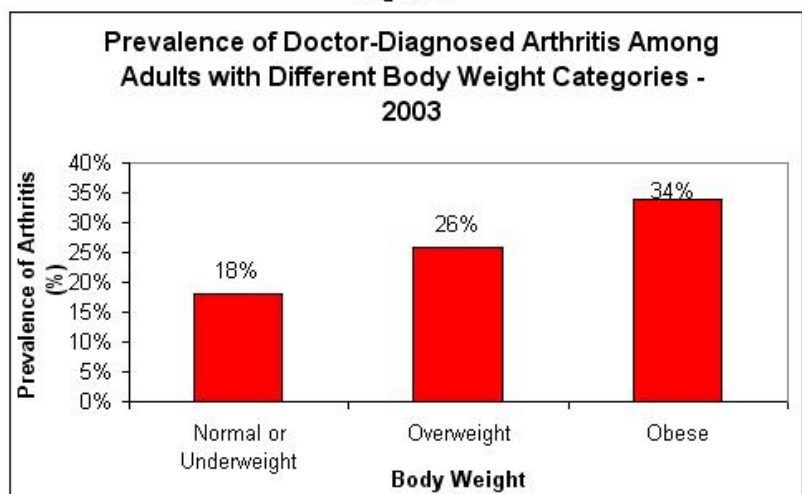
Figure-7



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Risk of Arthritis Increases with Weight Gain:** Excess body weight is an established risk factor for arthritis of weight bearing and non-weight bearing joints.<sup>(9,10)</sup> In Kansas, the prevalence of doctor-diagnosed arthritis was higher among individuals who were obese (34%), and overweight (26%) as compared to individuals with normal weight or underweight (18%). (Refer to Figure-8 and Table-3).

Figure-8



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003  
Note: Normal/Underweight: BMI <25, Overweight: BMI between 25 and 29.9, Obese: BMI ≥ 30

Body weight categories were derived from the body mass index (BMI) status (calculated as weight in kilograms divided by height in meters squared). Body Mass Index (BMI) is a weight status indicator measuring weight for height. The different categories of BMI are defined as follows:

- Obese: BMI  $\geq 30$  Kg/m<sup>2</sup>
- Overweight: BMI between 25 and 29.9 Kg/m<sup>2</sup>
- Normal or Underweight: BMI <25 Kg/m<sup>2</sup>

***Participating in physical activity delays the onset of functional limitations,<sup>(11,12,13)</sup> prevents obesity<sup>(14)</sup> and is essential for normal joint health<sup>(15,16)</sup>***

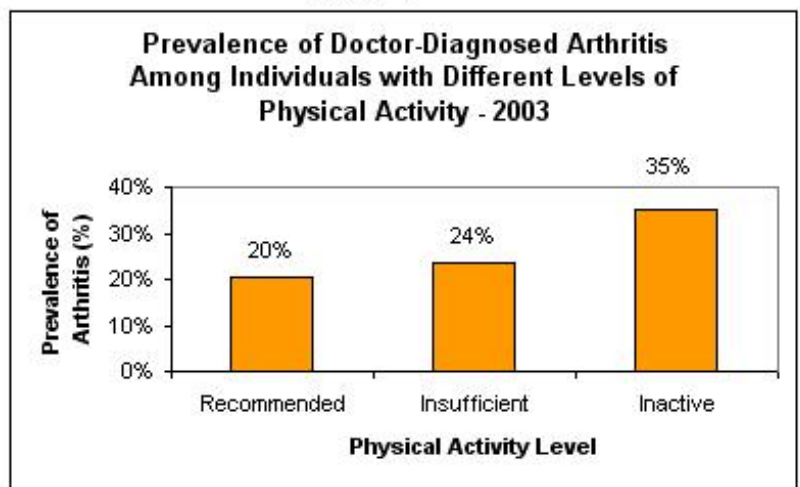
#### **Risk of Arthritis Increases with Decreased Physical Activity:**

Physical activity levels are defined as:

- **Recommended Activity:** participating in moderate physical activity at least 5 days per week for at least 30 minutes or more per day, or vigorous physical activity on at least 3 days per week for at least 20 minutes per day, or both. Physical activity includes leisure-time, household, and transportation.
- **Insufficient:** some activity but not enough to meet recommendations.
- **Inactive:** not participating in any physical activity or exercise other than their regular job in the past 30 days.

The prevalence of doctor-diagnosed arthritis was higher (35%) among individuals who did not participate in any physical activity as compared to those who participated in the recommended level of physical activity (20%). (Refer to Figure-9 and Table-3).

Figure-9



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

Note: **Recommended Activity:** participating in moderate physical activity at least 5 days per week for at least 30 minutes or more per day, or vigorous physical activity on at least 3 days per week for at least 20 minutes per day, or both.

**Insufficient:** some activity but not enough to meet recommendations.

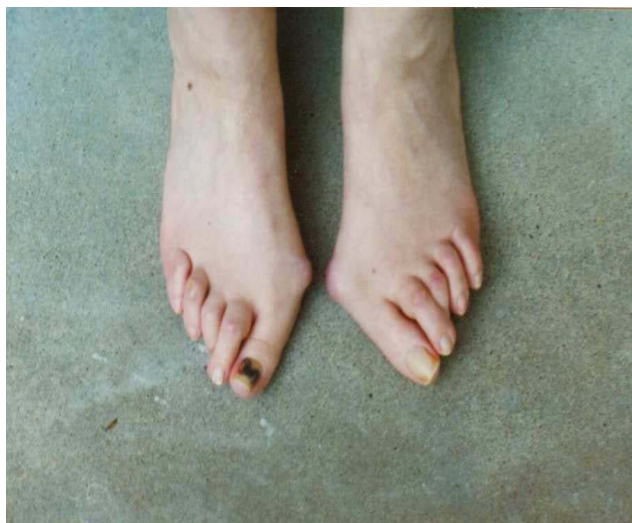
**Inactive:** not participating in any physical activity or exercise other than their regular job in the past 30 days.



## CHAPTER 4: How Does Arthritis Affect Individuals in Kansas?

"Most people don't see that arthritis affects nearly every aspect of my life. Things often taken for granted, such as squeezing toothpaste onto a toothbrush or getting into the car to head for work in the morning, are painful challenges. I've learned that attitude is my greatest ally -- as long as I stay positive, there's very little I can't do. I didn't choose to have arthritis, but I can choose how I live with it."

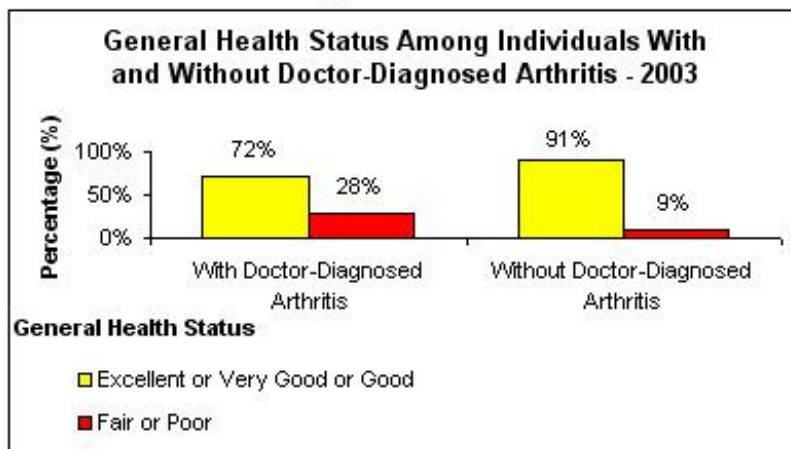
Andrea – Leawood, Kansas



Arthritis affects the physical, psychological, social and economic well being of the individuals with this disease, significantly impacting their quality of life.<sup>19</sup> This chapter will focus on the effects of the arthritis on individuals enduring the daily pain and limitations from the disease.

Figure-10

**General Health Status:** A higher percentage of individuals with doctor-diagnosed arthritis reported their general health status to be fair or poor (28%) as compared to those without doctor-diagnosed arthritis (9%). (Refer to Figure-10 and Table-4 on page-33).

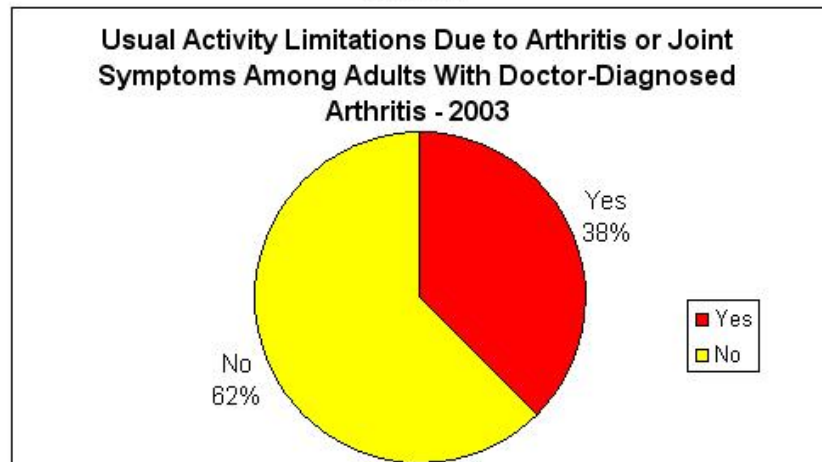


Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) – 2003

### Activity Limitations Due to Arthritis or Joint Symptoms:

More than one third (38%) of adults with doctor-diagnosed arthritis reported limitations in their usual activities because of arthritis or joint symptoms. (Refer to Figure-11)

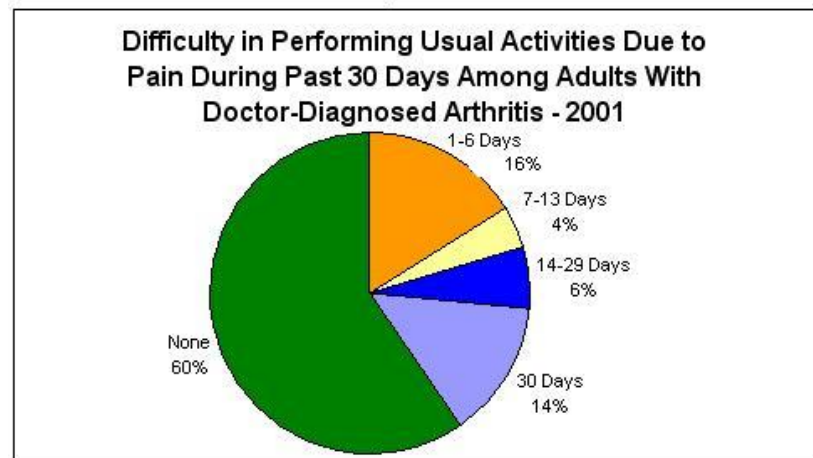
Figure-11



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Difficulty in Performing Usual Activities Due to Pain:** In 2001, Kansas BRFSS survey respondents were asked how many days pain made it hard for them to do their usual activities, such as self-care, work or recreation, during the past 30 days. 14% of the individuals with doctor-diagnosed arthritis reported difficulty in performing usual activities due to pain every day during the past 30 days. (Refer to Figure-12)

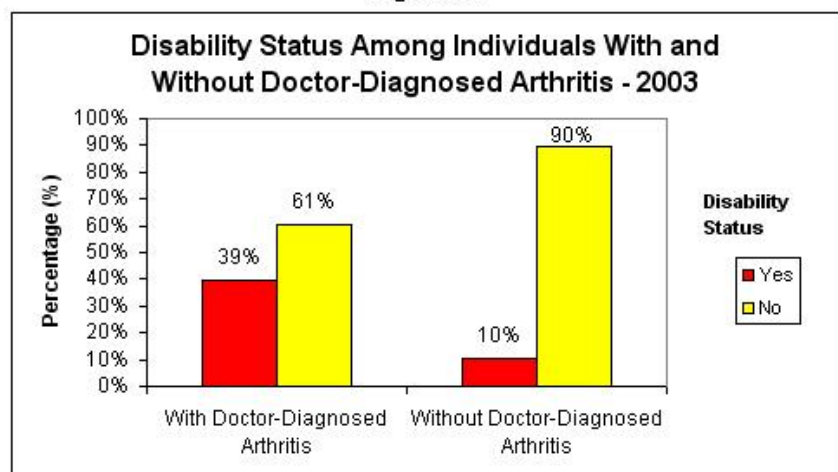
Figure-12



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2001

**Disability:** More than one third of the adults with doctor-diagnosed arthritis (39%) reported disability as compared to individuals without doctor-diagnosed arthritis (10%). (Refer to Figure-13 and Table-5-page 33).

Figure-13



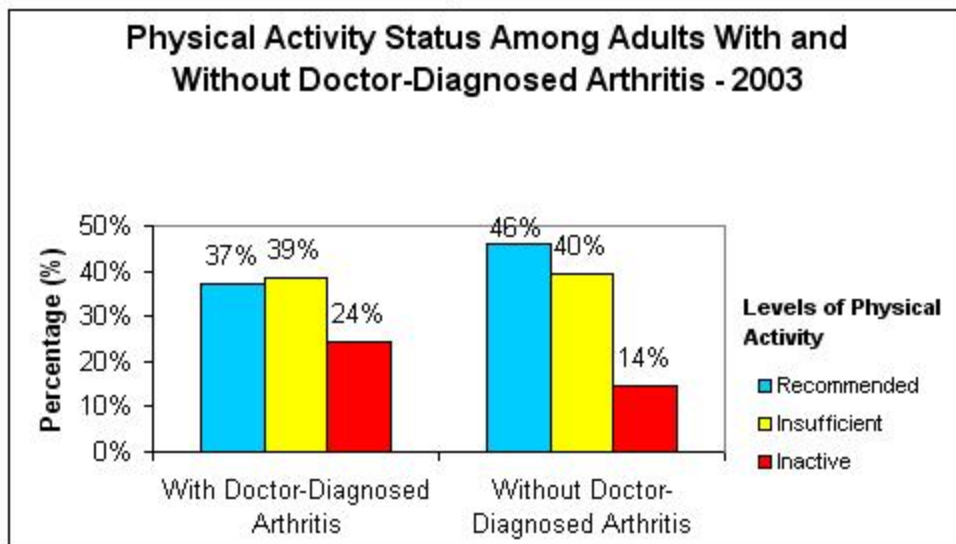
Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003



***Physical Activity has been shown to reduce pain and disability among persons with arthritis and increase their physical performance and self-efficacy.*** <sup>(17,18,13)</sup>

**Physical Activity:** Multiple clinical trials have shown that physical activity and exercise are beneficial for people with arthritis. However, in Kansas almost one in four individuals with doctor-diagnosed arthritis reported being inactive, and only one third of these individuals reported participating in the recommended levels of physical activity. A higher percentage of adults with doctor-diagnosed arthritis reported being inactive (24%) as compared to those without doctor-diagnosed arthritis (14%). (Refer to Figure-14 and Table-6 on page-34)

Figure-14



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

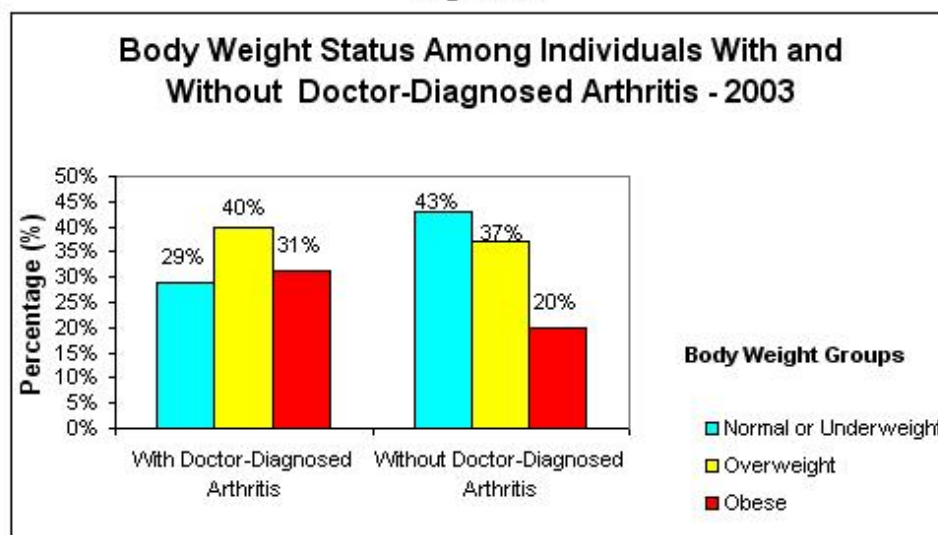
Note: **Recommended Activity:** participating in moderate physical activity at least 5 days per week for at least 30 minutes or more per day, or vigorous physical activity on at least 3 days per week for at least 20 minutes per day, or both.

**Insufficient:** some activity but not enough to meet recommendations.

**Inactive:** not participating in any physical activity or exercise other than their regular job in the past 30 days.

**Body Weight Status:** About two out of three adults with doctor-diagnosed arthritis were either overweight or obese (BMI  $\geq 25$  kg/m<sup>2</sup>). About one out of every three individuals with doctor-diagnosed arthritis was obese (BMI  $\geq 30$ kg/m<sup>2</sup>). A higher percentage of adults with doctor-diagnosed arthritis (31%) were obese as compared to those without doctor-diagnosed arthritis (20%). (Refer to Figure-15 and Table-7 on page-36).

Figure-15



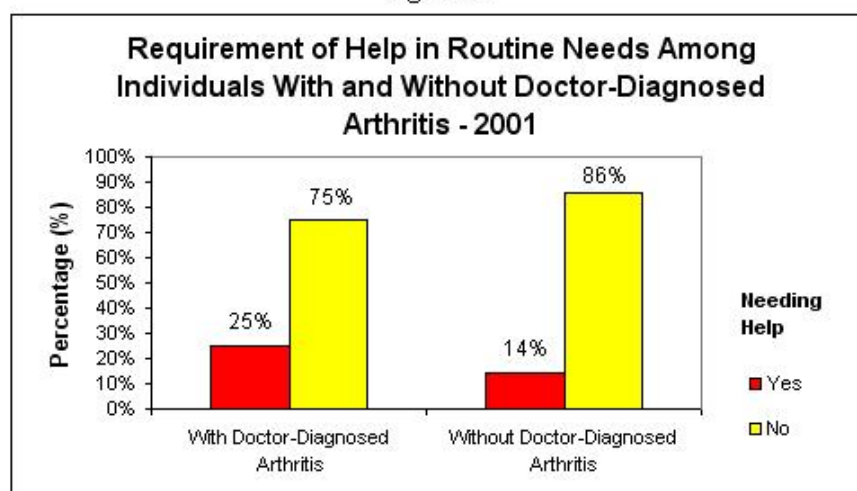
Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

Note: Body Mass Index (BMI): Calculated as weight in kilograms divided by height in meters squared

Note: Normal/Underweight: BMI <25, Overweight: BMI between 25 and 29.9, Obese: BMI  $\geq 30$

**Daily Living:** Among respondents using special equipment or having trouble learning, a higher percentage of individuals with doctor-diagnosed arthritis (25%) reported needing help from others in handling their routine needs (i.e. everyday household chores, doing necessary business, shopping, or getting around for other purposes) due to any impairment or health problem than those without doctor-diagnosed arthritis (14%). (Refer to Figure-16 and Table-8 on page-35).

Figure-16



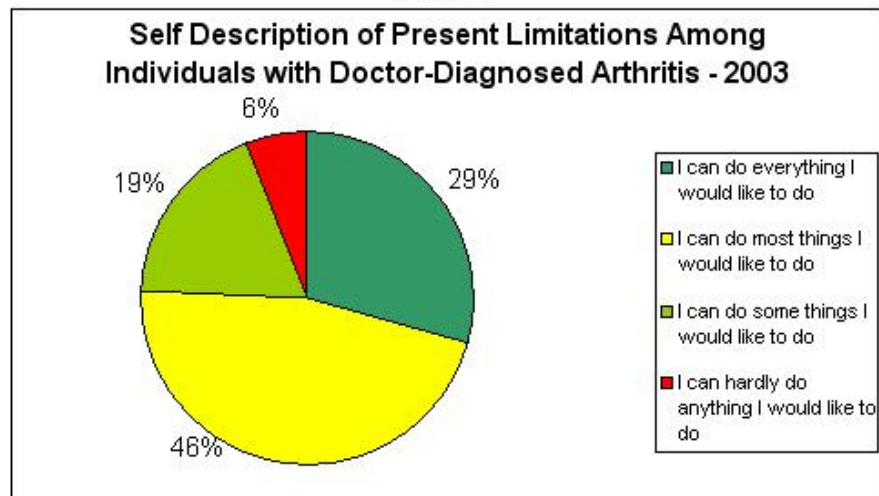
Note: Prevalence was reported among those who have any kind of impairment

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2001

### Self-Description of Present Limitations Due to Arthritis or Joint Symptoms:

In 2003, Kansas BRFSS survey respondents were asked to think about their arthritis or joint symptoms and pick a statement that best described how they could do things, ranging from being able to do everything they would like to do to being hardly able to do anything they would like to do. Among individuals with doctor-diagnosed arthritis, 6% reported the inability to do anything they would like to do and 19% reported ability to do only some things, which they would like to do. (Refer to Figure 17)

Figure-17

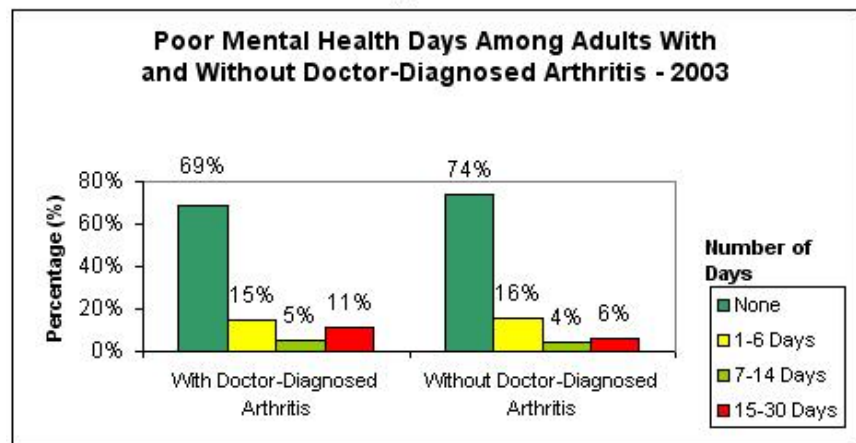


Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) – 2003

**Mental Health:** A higher percentage of individuals with doctor-diagnosed arthritis (11%) reported that their mental health status (including stress, depression, and problems with emotions) was not good for 15-30 days during the past 30 days when compared to individuals without doctor-diagnosed arthritis (6%).

(Refer to Figure-18 and Table- 9 on Page-35)

Figure-18



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS)-2003

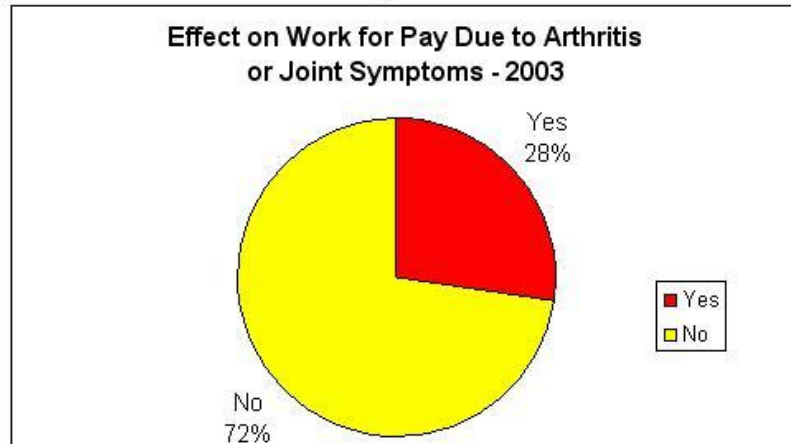
***Arthritis is the leading cause of activity limitations and disability<sup>(3)</sup>***

**Absenteeism:** In 2003, among individuals with doctor-diagnosed arthritis, 8% reported missing at least one day of work during the past 12 months due to stress, depression or problems with emotions in Kansas.

**Gainful Employment  
Affected Because of  
Arthritis or Joint  
Symptoms:**

28% of adults with doctor-diagnosed arthritis age 18-64 reported that arthritis or joint symptoms affected whether they work, the type of work they do or the amount of work they do. (Refer to Figure-19)

Figure-19



Note: Above pie chart is showing the effects of arthritis or joint symptoms on work for pay among adults with doctor-diagnosed arthritis.

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003



**The hands of an artist with rheumatoid arthritis**



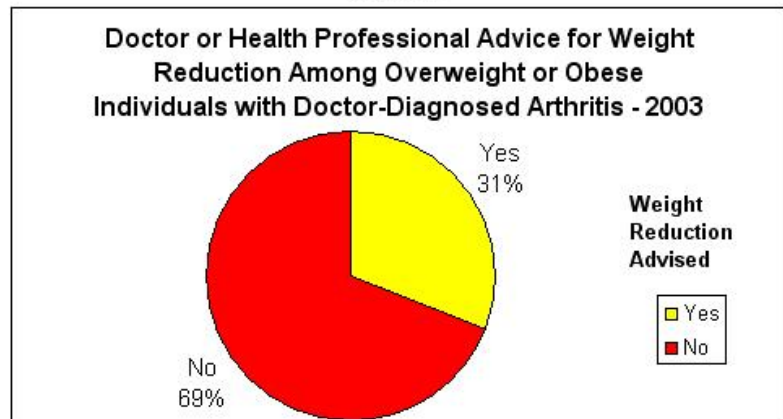


## CHAPTER 5: Professional Advice Regarding Weight Loss and Physical Activity

### Advice by a Doctor or Health Professional to Lose Weight:

Among individuals with doctor-diagnosed arthritis who reported being overweight or obese, more than two third (69%) had reported not being advised by a doctor or health professional to lose weight to help their arthritis or joint symptoms. (Refer to Figure-20)

Figure-20



### Advice by a Doctor or Health Professional to Participate in Physical Activity or Exercise:

About half of the individuals with doctor-diagnosed arthritis (51%) reported that their doctor or health professional did not advise them to participate in physical activity or exercise to help manage their arthritis or joint symptoms. (Refer to Figure-21)

Figure-21



## CHAPTER 6: Self-Management Programs - Knowledge and Practice

'When I first began to experience the symptoms of ankylosing spondylitis, I was scared. Being 18 years old, it was hard to fathom why I was having so much pain in my hips and lower back. To make matters worse, my doctors had a very difficult time diagnosing my condition, and I, like most people, had never heard of ankylosing spondylitis. I had no idea there were over 100 forms of arthritis, many of which affect children and young adults.

However, I was lucky. My insurance allowed me to receive second, third and even forth opinions, and, after being diagnosed, I had access to an excellent medical team who taught me about the multiple ways to manage my arthritis—medication, exercise, self-management. My doctor gave me information about the Spondylitis Association of America (SAA) and the Arthritis Foundation (AF), two organizations that provide information and support to people with arthritis. Through the programs offered by the SAA and the AF, I have learned to take control of my arthritis. I still have good days and bad days—but I have learned to make the most of all of them. With appropriate medications, an effective exercise program, workplace accommodations, and involvement in support groups and other educational programs offered by the SAA and AF, I have learned that I can still live a positive and productive life. Ankylosing spondylitis has taught me about myself, and helped me to realize that we all have an array of strengths and abilities, and so long as we focus on these, we can do anything."

Karrie – Lawrence, Kansas

Based on a qualitative study, Corbin and Strauss identified three sets of tasks associated with self-management: medical or behavioral management; dealing with the emotions of having a chronic disease and maintaining, changing or creating new life roles. For an individual with chronic disease, self-management has become an integral part of their treatment. Patient education and behavior as well as health promotion programs are all components of self-management.<sup>20, 8</sup>

Kate Lorig and Halsted Holman have stated that the issues of self-management are especially important for those with chronic disease, where only the patient can be responsible for his or her day to day care over the length of the illness.<sup>20</sup> For most of these people, self-management is a lifetime task.<sup>20</sup>

The Arthritis Foundation website includes description of three self-management programs that have been proven to improve the quality of life for individuals with arthritis. They are the Arthritis Foundation Exercise Program\*\* (known as PACE®), the Arthritis Foundation Aquatic Program and the Arthritis Self-Help Course. The CDC has recommended these programs to decrease arthritis pain and disability associated with arthritis.

The following description of the self-management programs has been adopted from the Arthritis Foundation website (for more information refer to [www.arthritis.org](http://www.arthritis.org)):

The **Arthritis Foundation Exercise Program** is an exercise program designed specifically for people with arthritis that uses gentle activities to help increase joint flexibility and range of motion and to help maintain muscle strength. It also helps to increase overall stamina. Because there are many different types of arthritis and related conditions, levels of fitness, and degrees of limitation, two levels of the classes are available – basic and advanced.<sup>21</sup>

Participants previously enrolled in the **PACE®** program have experienced such benefits as increased functional ability, increased self-care behaviors, decreased pain and decreased depression.

*\*\*Note: Arthritis Foundation will be launching the new name for the program in September 2005*

The **Arthritis Foundation Aquatic Program** is a water exercise program designed for people with arthritis and related conditions. Water exercise is especially good for people with arthritis, because it allows them to exercise without putting excess strain on their joints and muscles. The **Arthritis Foundation Aquatics Program** gives them the opportunity to do gentle activities in warm water, with guidance from a trained instructor. Although it is a nonclinical program (one that will not replace a prescribed regimen of therapeutic exercise), past participants have enjoyed some physical benefits such as decreased pain and stiffness.<sup>21</sup>

The **Arthritis Foundation Aquatic Program** also provides a friendly and supportive atmosphere in which individuals can make new friends and try new activities. This social interaction can help decrease feelings of depression and isolation. Progress in the aquatic activities can lead to independence and improved self-esteem.<sup>21</sup>

The **Arthritis Self-Help Course** is a group education program designed to complement the professional services provided by the health-care team. Trained volunteers, many of whom have arthritis or fibromyalgia, lead the courses. The course allows sharing experiences with others, offering the opportunity to both help and learn from people with arthritis.<sup>21</sup>

The **Arthritis Self-Help Course** is designed to identify and teach the latest pain management techniques, help develop an individualized exercise program, help learn to manage fatigue and stress more effectively, discuss the purposes and effective use of medications, help find solutions to problems caused by arthritis, identify ways to deal with anger, fear, frustration and depression, discuss the role of nutrition in arthritis management, help learn new ways to communicate with family and friends and teach participants how to form a partnership with their health-care team.<sup>21</sup>

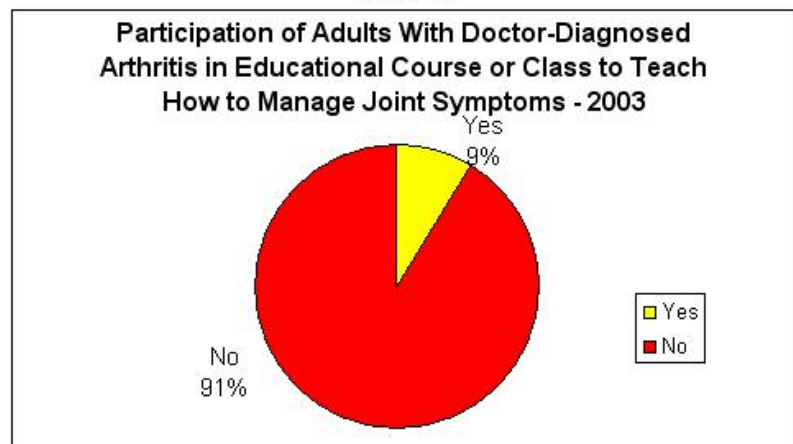
Past participants of the Arthritis Self-Help Course have experienced such benefits as increased knowledge about their arthritis, increased frequency of exercise and relaxation, increased self-confidence, decreased depression, decreased pain, and decreased physician visits.<sup>21</sup>

**Knowledge Regarding Availability of Educational Courses or Classes to Teach Management of Problems Related to Arthritis or Joint Symptoms among adults with doctor-diagnosed arthritis:** In Kansas, about half (50.3%) of the individuals with doctor-diagnosed arthritis reported not being aware of the educational courses or classes available in their community which would teach them how to manage problems related to their arthritis or joint symptoms. (Refer to Table –10 on page 36)

**Doctors Advice to Participate in Arthritis Foundation Programs for Managing Problems Related to Arthritis or Joint Symptoms:** Among individuals with doctor-diagnosed arthritis, 98% reported that a doctor or health professional had never advised them to participate in an Arthritis Foundation program to help manage problems related to their arthritis or joint symptoms. (Refer to Table –10 on page 36)

**Participation in Educational Course or Class to Teach How to Manage Arthritis or Joint Symptoms:**

Among individuals with doctor-diagnosed arthritis, 91% reported that they had never taken an educational course or class to teach them how to manage problems related to their arthritis or joint symptoms. (Refer to Figure-22 and Table – 10 on page 36)



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Participation in Physical Activity**

**or Exercise to Manage Problems Related to Arthritis or Joint Symptoms:** Among individuals with doctor-diagnosed arthritis, 64% reported not participating in physical activity or exercise to help manage problems related to arthritis or joint symptoms. (Refer to Table – 10 on page 36)

**Participation in Support Group to Help Manage Problems Related to Arthritis or Joint Symptoms:**

Among individuals with doctor-diagnosed arthritis, 97% reported not participating in any support group to help manage problems related to their arthritis or joint symptoms. (Refer to Table-10 on page 39)



## CHAPTER 7 – What Is Being Done To Reduce The Impact?

The Kansas Arthritis Program, located in the Office of Health Promotion was launched in September 1999 through a cooperative agreement with the CDC and the Kansas Department of Health and Environment to create the infrastructure and capacity to reduce the impact of arthritis in the state. The Kansas Arthritis Program facilitated the development of the statewide Arthritis Community Taskforce (ACT), a partnership of organizations and individuals with a strong interest in arthritis. (For a complete listing of the ACT membership please see page 30 in the appendices.) ACT has developed a long-term statewide plan to address and reduce the impact of arthritis in Kansas with the overall goal to improve the quality of life for Kansans with arthritis. Obtainment of this goal is multifaceted, the key components include increasing awareness that arthritis can be managed, implementing community based interventions and evaluation/surveillance of the burden of arthritis in the state.

**Awareness:** To increase the awareness that arthritis can be managed, the CDC Health Communications Campaign “Physical Activity. The Arthritis Pain Reliever” has been implemented statewide the past three years during the month of May – National Arthritis Awareness Month. Following is a listing of the placement of the campaign materials. The radio spots were placed with the Kansas Radio Networks (KRN), which has affiliates statewide as well as various radio stations in the Topeka, Wichita and Kansas City metro areas.

### May 2003:

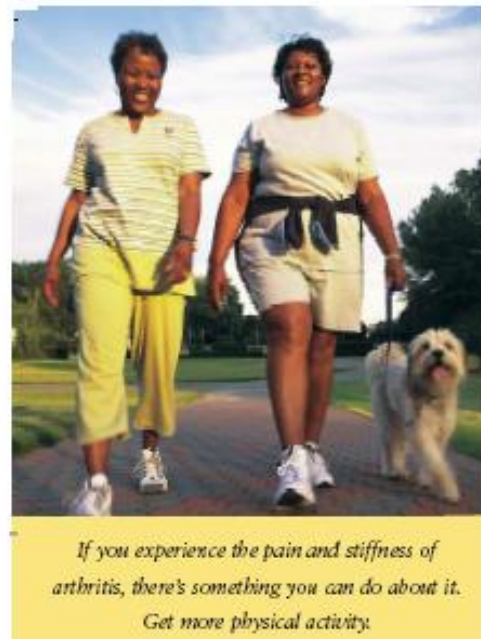
- Aired 60, 60 second radio spots with KRN
- Aired 38, 60 second radio spots in Topeka
- Aired 64, 60 second radio spots on four Entercom Broadcasting radio stations in the Kansas City metro area.

### May 2004:

- Aired 132, 60 second radio spots on 39 stations with KRN
- Aired 51, 60 second radio spots in Topeka
- Aired 56, 60 second radio spots in Kansas City metro area
- Placed four print ads in the Kansas neighborhood sections of the Kansas City Star
- Placed seven print ads in the Wichita Eagle

### May 2005:

- Aired 100, 30 second radio spots on 37 stations with KRN
- Aired 208, 30 second radio spots on 6 radio stations in Wichita
- Aired 150, 30 second radio spots on 3 radio stations in Topeka
- Aired 112, 60 second radio spots on 3 radio stations in Kansas City
- Placed five print ads in the Wichita Eagle
- Placed print ad in Val Pak mailing which is distributed to 100,000 homes in Kansas
- Mailed bookmarks to twenty two libraries that have the Arthritis Foundation books



The ACT members throughout the state distributed brochures and bookmarks using the campaign materials.

**Community-Based Interventions:** The partnerships developed through ACT have resulted in the expansion of the Arthritis Foundation Self-Management programs: the Arthritis Foundation Aquatic Program, the Arthritis Foundation Exercise Program (formerly known as the PACE Program) and the Arthritis Self-Help Course offerings across the state.

According to the Kansas Chapter of the Arthritis Foundation, there were a total of 22 Arthritis Foundation Aquatic Programs provided in 12 counties in the year 2000. There were no Arthritis Foundation Exercise Programs or Arthritis Foundation Self-Help Courses offered in the Kansas Chapter service area, which covers 103 of the 105 counties in Kansas. The Western Missouri/Greater Kansas City Chapter of the Arthritis Foundation provides programs and services in Johnson and Wyandotte Counties in Kansas.

Figure 23 illustrates the steady growth of the program highlighting the number of programs offered and the numbers of counties the programs are located in Kansas. The Arthritis Foundation Aquatics Program has not grown as steadily due to the water temperature requirements of the program (the minimum water temperature is 83°) and the availability of indoor pools throughout Kansas. The areas in gray illustrate the numbers provided by the Kansas Chapter of the Arthritis Foundation. The areas in white illustrate the combined numbers from both chapters. The Kansas Arthritis Program did not collect data from the Western Missouri/Greater Kansas City Chapter until 2003. NA illustrates that the numbers for those programs are not available.

**Evaluation/Surveillance:** The Kansas Arthritis Program collects statewide data on the prevalence of arthritis and how it impacts the individuals, through the Kansas Behavioral Risk Factor Surveillance System. The information is collected in the odd numbered years. The information obtained through BRFSS is used to help direct the work of the ACT in achieving the objectives outlined in the state plan. A copy of the state plan can be found at the Kansas Arthritis Program website: [www.kdhe.state.ks.us/arthritis](http://www.kdhe.state.ks.us/arthritis).

Figure 23

Year	Self Management Programs	# of Counties Offering Class	# of Classes in State
2000	Aquatics Program	12	22
	Exercise Program	0	0
	Self-Help Course	NA	NA
2001	Aquatics Program	17	NA
	Exercise Program	0	NA
	Self-Help Course	0	NA
2002	Aquatics Program	NA	NA
	Exercise Program	11	11
	Self-Help Course	NA	NA
2003	Aquatics Program	17	33
	Exercise Program	9	11
	Self-Help Course	1	2
2004	Aquatics Program	19	44
	Exercise Program	14	19
	Self-Help Course	3	5
2005	Aquatics Program	19	44
	Exercise Program	14	19
	Self-Help Course	6	6

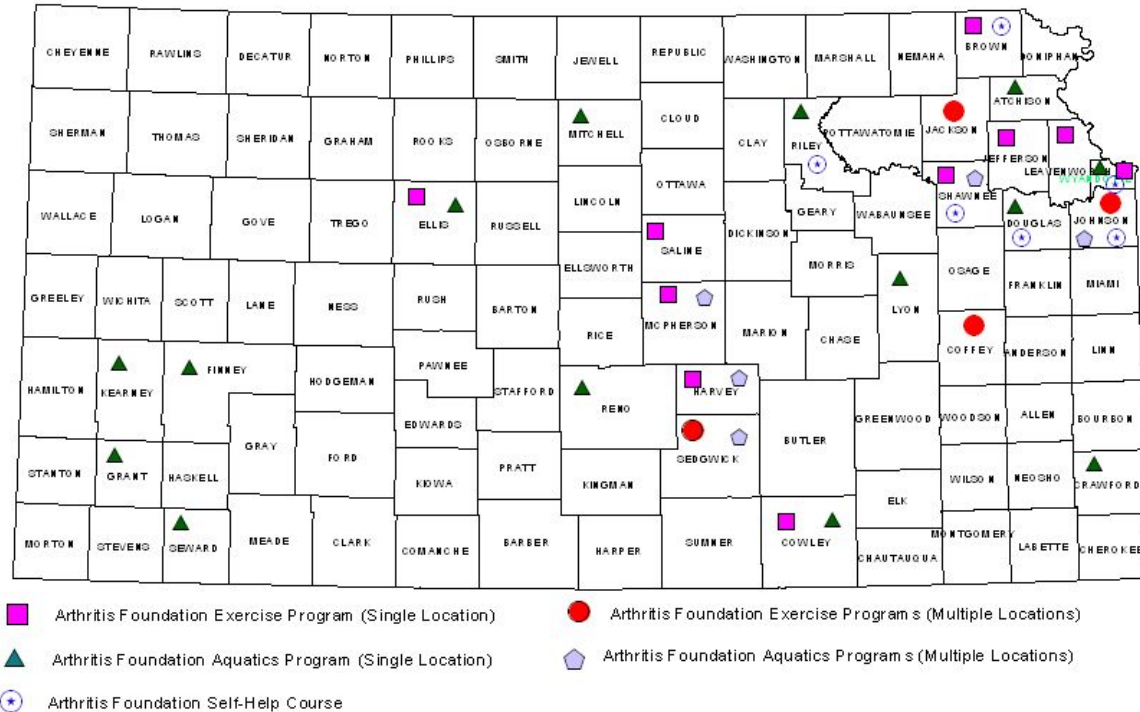
**Kansas Chapter information**

Information from both chapters

NA - information is not available

The map below illustrates program locations as of June 2005

**Locations in Kansas of Arthritis Foundation Self-Management Programs - June 2005**



**Counties with Arthritis Foundation Self-Management Programs at Multiple Locations:**

Programs	Counties
Arthritis Foundation Exercise Program	Coffey, Jackson, Johnson, Sedgwick,
Arthritis Foundation Aquatics Program	Johnson, Shawnee, McPherson, Harvey, Sedgwick.

## CHAPTER 8: Access to Health Care

Access to health care among individuals with doctor-diagnosed arthritis in Kansas was assessed using 2003 Kansas Behavioral Risk Factor Surveillance System data on the following indicators:

- Whether respondents had any health care coverage
- A person whom they consider as their personal doctor or health care provider
- If there was a time in the past 12 months when they could not see a doctor when needed because of the cost.

### 2003 Behavioral Risk Factor Surveillance System, Access to Health Care Questions:

1. Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?
2. Do you have one person you think of as your personal doctor or health care provider?
3. Was there a time in the past 12 months when you needed to see a doctor but could not because of the cost?

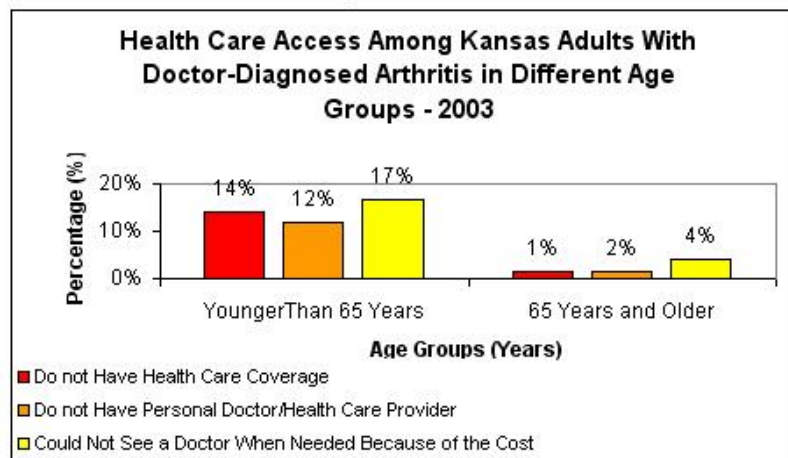
Among individuals with doctor-diagnosed arthritis, 9% reported not having health care coverage, 8% reported not having one or more personal doctors or health care provider, while 12% reported not being able to see a doctor when needed during the past 12 months because of the cost.

**Health Care Access Among Age Groups:** Among Kansas adults with doctor-diagnosed arthritis who were younger than 65, about 1 in 7 (14%) reported not having any health care coverage, 1 in 8 (12%) reported not having one or more doctors or health care providers, while almost 1 in 6 (17%) reported not being able to see a doctor when needed during the past 12 months because of the cost.

A very small percentage of adults with doctor-diagnosed arthritis age 65 and older reported that they do not have health care coverage and do not have a personal doctor or health care provider. Only 4 % of these individuals reported that they could not see a doctor when needed because of the cost. (Refer to Figure-24 and Table-11 on page 37)

Health care access among individuals with doctor-diagnosed arthritis who were younger than 65 was poor when compared to individuals with doctor-diagnosed arthritis aged 65 and older.

Figure-24



Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Health Care Access Among Gender Groups:** Almost one in eleven men (9%) and one in ten (10%) women who have doctor-diagnosed arthritis reported not having health care coverage. One in nine men (11%) and one in sixteen (6%) women with doctor-diagnosed arthritis reported not having a personal doctor or health care provider. One in 11 men (9%) and one in seven (14%) women with doctor-diagnosed arthritis reported not being able to see a doctor when needed because of the cost.  
(Refer to Table – 12 on page 37)

**Health Care Access Among Adults with Different Education Levels:** Among individuals with doctor-diagnosed arthritis, almost one in six (18%) of those who have a high school education and one in nine (11%) with less than a high school education reported not having health care coverage as compared to only 4% of adults with a college education who reported not having health care coverage.

The educational profile of those with doctor-diagnosed arthritis who reported not having a personal doctor or health care provider was as follows:

- One in nine (11%) with less than a high school education,
- One in twelve (8%) with a high school education,
- One in eleven (9%) with a partial college education, and
- 6% with a college education have reported not having a personal doctor or health care provider.

The educational profile of those with doctor-diagnosed arthritis who reported not being able to see a doctor during the past 12 months due to the cost was as follows:

- Almost one in six (18%) with less than a high school education,
- One in seven (15%) with a high school education,
- One in nine (11 %) with a partial college education, and
- One in twelve (8%) with a college education reported not being able to see a doctor during the past 12 months because of the cost (Refer to Table – 13 on page 38)

**Health Care Access Among Adults with Different Income Levels:** A higher percentage of adults with doctor-diagnosed arthritis with an annual household income less than \$25,000 did not have health care coverage as compared to those with an annual household income of \$25,000 and higher. Thus, among those with doctor-diagnosed arthritis, one in five individuals (20%) with an annual household income less than \$25,000 reported not having health care coverage when compared to one in fourteen individuals (7%) with an annual household income in the range of \$25,000-\$49,999 and 3% of individuals with an annual household income of \$50,000 and above.

The income profile of those with doctor-diagnosed arthritis who reported not having a personal doctor or health care provider was as follows:

- One in eleven individuals (9%) having an annual household income of less than \$25,000,
- Approximately one in twelve individuals (7.9%) with an annual household income ranging from \$25,000 - \$49,999, and
- Approximately one in thirteen individuals (7.3%) with an annual household income of \$50,000 and above reported not having a personal doctor or health care provider

Among individuals with doctor-diagnosed arthritis, approximately one in four individuals (25%) with an annual household income of less than \$25,000 and one in ten individuals (10%) with an annual household income ranging from \$25,000-\$49,000 reported not being

able to see a doctor when needed because of the cost, when compared to only 5% of individuals with an annual household income of \$50,000 and above. (Refer to Table – 14 on page 39)

## **Appendices:**

### **2003 - Behavioral Risk Factor Surveillance System Core Questions:**

1. The next questions refer to your joints. Please do NOT include the back or neck. DURING THE PAST 30 DAYS, have you had any symptoms of pain, aching, or stiffness in or around a joint?
2. Did your joints symptoms FIRST begin more than 3 months ago?
3. Have you ever seen a doctor or other health professional for these joint symptoms?
4. Have you EVER been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?
5. Are you now limited in any way in any of your usual activities because of arthritis or joint symptoms?
6. If age is between 18-64: In this next question we are referring to work for pay. Do arthritis or joint symptoms now affect whether you work, the type of work you do, or the amount of work you do?

#### **Disability:**

7. Are you limited in any way in any activities because of physical, mental, or emotional problems?
8. Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?

#### **Health Status:**

9. Would you say that in general your health is?
10. Now think about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

### **2003 - Behavioral Risk Factor Surveillance System Optional Questions:**

1. Thinking about your arthritis or joint symptoms, which of the following best describes you **TODAY**?
  - I can do everything I would like to do
  - I can do most things I would like to do
  - I can do some things I would like to do
  - I can hardly do anything I would like to do
2. Has a doctor or other health professional EVER suggested losing weight to help your arthritis or joint symptoms?
3. Has a doctor or other health professional EVER suggested physical activity or exercise to help your arthritis or joint symptoms?
4. Have you EVER taken an educational course or class to teach you how to manage problems related to your arthritis or joint symptoms?

### **2003 - Behavioral Risk Factor Surveillance System State Added Questions:**

1. To your knowledge, are there educational courses or classes available in your community that could teach you how to manage problems related to your arthritis or joint symptoms?
2. Do you currently participate in physical activity or exercise to help manage problems related to your arthritis or joint symptoms?

3. Do you currently participate in any support group to help manage problems related to your arthritis or joint symptoms?
4. Has a doctor or other health professional ever suggested you participate in an Arthritis Foundation program to help manage problems related to your arthritis or joint symptoms?

**Absenteeism:**

5. If “employed”, “self-employed”, “student”, or “retired”: During the past 12 months, excluding vacation days, maternity or paternity leave, or other planned days off, how many days did you miss work due to stress, depression or problems with emotions?

**2003 - Behavioral Risk Factor Surveillance System, Health Care Access Questions:**

1. Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?
2. Do you have one person you think of as your personal doctor or health care provider?
3. Was there a time in the past 12 months when you needed to see a doctor but could not because of the cost?

**2001 Behavioral Risk Factor Surveillance System Quality of Life Questions:**

1. Because of any impairment or health problem, do you need the help of other persons in handling your ROUTINE NEEDS, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?
2. During the past 30 days, for about how many days did PAIN make it hard for you to do your usual activities, such as self-care, work, or recreation?

**Arthritis Community Taskforce Membership**

Kansas Chapter of the Arthritis Foundation  
 Western Missouri/Greater Kansas City Chapter of the Arthritis Foundation  
 Bloom and Associates Physical Therapy  
 Kansas Department on Aging  
 AARP Driver Safety Program  
 Resource Center of Independent Living  
 University of Kansas: Department of Gerontology  
 Kansas State University, Department of Horticulture Forestry & Recreation  
 Western Missouri/Greater Kansas City Chapter Support Group leader  
 Kansas Activity Directors Association  
 Johnson County Area Agency on Aging  
 Johnson County Health Department  
 University of Kansas Medical Center: School of Allied Health, Occupational Therapy  
 Kansas University School of Medicine Wichita: Department of Preventive Medicine & Public Health  
 Kansas Hispanic and Latino American Affairs Commission  
 Individuals with arthritis



**Table- 1: Regions in Kansas:**

<b>Regions</b>	<b>Counties Included</b>
<b>Northwest</b>	Cheyenne, Sherman, Wallace, Rawlins, Thomas, Logan, Decatur, Sheridan, Gove, Norton, Graham, Trego, Phillips, Rooks, Ellis, Rush, Pawnee, Smith, Osborne, Russell, Barton, Stafford, Rice
<b>Southwest</b>	Greeley, Hamilton, Stanton, Morton, Wichita, Kearney, Grant, Stevens, Scott, Finney, Haskell, Seward, Lane, Gray, Meade, Ness, Hodgeman, Ford, Clark
<b>North Central</b>	Jewell, Mitchell, Lincoln, Ellsworth, Republic, Cloud, Ottawa, Saline, McPherson, Washington, Clay, Dickinson, Marion, Marshall, Riley, Geary, Morris, Chase, Pottawatomie, Wabaunsee
<b>South Central</b>	Edwards, Kiowa, Comanche, Pratt, Barber, Reno, Kingman, Harper, Harvey, Sedgwick, Sumner, Butler, Cowley
<b>Northeast</b>	Nemaha, Jackson, Shawnee, Osage, Brown, Atchison, Jefferson, Douglas, Franklin, Doniphan, Leavenworth, Wyandotte, Johnson, Miami
<b>Southeast</b>	Lyon, Greenwood, Elk, Chautauqua, Coffey, Woodson, Wilson, Montgomery, Anderson, Allen, Neosho, Labette, Linn, Bourbon, Crawford, Cherokee

**Table- 2: Prevalence of Doctor-Diagnosed Arthritis in Six Regions of Kansas:**

<b>Regions</b>	<b>With Doctor-Diagnosed Arthritis</b>			<b>Without Doctor-Diagnosed Arthritis</b>		
	Frequency	Weighted Percentage	95% Confidence Intervals	Frequency	Weighted Percentage	95% Confidence Intervals
<b>Northwest</b>	94	28%	22.5%-33.7%	206	72%	66.3%-77.5%
<b>Southwest</b>	58	21%	15.1%-26.0%	193	79%	73.9%-84.9%
<b>North Central</b>	164	23.8%	20.1%-27.6%	423	76.2%	72.4%-79.9%
<b>South Central</b>	303	23.6%	20.8%-26.4%	771	76.4%	73.6%-79.2%
<b>Northeast</b>	485	22%	20.2%-24.3%	1408	78%	75.6%-79.8%
<b>Southeast</b>	162	32%	27.4%-36.8%	283	68%	63.2%-72.6%

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Table-3: Percentage of Kansas adults with doctor-diagnosed arthritis and without doctor-diagnosed arthritis by selected characteristics, Kansas BRFSS 2003**

Characteristic	Doctor-Diagnosed Arthritis			Without Doctor-Diagnosed Arthritis		
	Frequency	Weighted Percentage %	95% Confidence Intervals	Frequency	Weighted Percentage %	95% Confidence Intervals
<b>Age</b>						
18-44	236	11%	5.9%-8.4%	1662	89%	87.6%-90.7%
45-64	542	34%	31.2%-36.4%	1063	66%	63.6%-68.7%
65+	487	48%	44.3%-51.1%	543	52%	48.9%-55.7%
<b>Gender</b>						
Male	422	21%	18.6%-22.6%	1393	79%	77.3%-81.4%
Female	851	28%	26.6%-30.3%	1904	72%	69.7%-73.4%
<b>Race</b>						
White Only	1169	25%	23.7%-26.6%	2946	75%	73.4%-76.3%
Black Only	48	26%	18.3%-32.9%	130	74%	67.1%-81.7%
Other Races	36	14%	9.2%-19.2%	169	86%	80.7%-90.8%
Multiracial	16	32%	17.4%-46.0%	37	68%	54.0%-82.6%
<b>Ethnicity</b>						
Hispanic	32	12%	7.4%-16.3%	168	88%	83.7%-92.6%
Non-Hispanic	1238	25%	23.9%-26.8%	3126	75%	73.2%-76.1%
<b>Income</b>						
Less than \$25,000	380	28.8%	25.7%-31.9%	711	71.2%	68.1%-74.3%
\$25,000-\$49,999	373	22.4%	20.1%-24.7%	1110	77.6%	75.3%-80.0%
\$50,000 and Above	313	22.0%	19.6%-24.4%	1030	78.0%	75.6%-80.4%
<b>Education</b>						
Less than High School	101	30%	24.2%-36.2%	176	70%	63.8%-75.9%
High School	424	27%	24.8%-30.1%	911	73%	69.9%-75.2%
Some College	379	24%	21.5%-26.6%	1011	76%	73.4%-78.5%
College	368	22%	19.3%-23.7%	1193	78%	76.3%-80.7%
<b>Body Weight</b>						
Normal or Underweight	353	18%	16%-19.9%	1328	82%	80.1%-84.0%
Overweight	463	26%	23.4%-28.2%	1150	74%	71.8%-76.6%
Obese	392	34%	30.8%-37.1%	655	66%	62.9%-69.2%
<b>Physical Activity</b>						
Recommended	439	20%	18.4%-22.4%	1438	80%	77.6%-81.6%
Insufficient	476	24%	21.5%-25.8%	1299	76%	74.2%-78.4%
Inactive	302	35%	31.2%-38.9%	479	65%	61.1%-68.8%

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Table-4: General Health Status Among Kansas Adults with and Without Doctor-Diagnosed Arthritis:**

	<b>General Health Status</b>	<b>Frequency</b>	<b>Weighted Percentage (%)</b>	<b>95% Confidence Interval</b>
<b>Doctor-Diagnosed Arthritis</b>	<b>Excellent or Very Good or Good</b>	<b>909</b>	<b>72%</b>	<b>69.6%-75.1%</b>
	<b>Fair or Poor</b>	<b>358</b>	<b>28%</b>	<b>25.0%-30.4%</b>
<b>Without Doctor-Diagnosed Arthritis</b>	<b>Excellent or Very Good or Good</b>	<b>2997</b>	<b>91%</b>	<b>90.3%-92.6%</b>
	<b>Fair or Poor</b>	<b>295</b>	<b>9%</b>	<b>7.4%-9.7%</b>

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Table-5: Disability Status Among Kansas Adults With and Without Doctor-Diagnosed Arthritis:**

	<b>Disability</b>	<b>Frequency</b>	<b>Weighted Percentage (%)</b>	<b>95% Confidence Interval</b>
<b>Doctor-Diagnosed Arthritis</b>	<b>Yes</b>	<b>497</b>	<b>39%</b>	<b>36.3%-42.4%</b>
	<b>No</b>	<b>765</b>	<b>61%</b>	<b>57.6%-63.7%</b>
<b>Without Doctor-Diagnosed Arthritis</b>	<b>Yes</b>	<b>381</b>	<b>10%</b>	<b>9.3%-11.7%</b>
	<b>No</b>	<b>2908</b>	<b>90%</b>	<b>88.3%-90.7%</b>

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Table-6: Participation in Physical Activity Among Adults With and Without Doctor-Diagnosed Arthritis:**

Arthritis Status	Physical Activity	Frequency	Weighted Percentage (%)	95% Confidence Interval
<b>Doctor-Diagnosed Arthritis</b>	<b>Recommended</b>	<b>439</b>	<b>37%</b>	<b>33.9%-40.1%</b>
	<b>Insufficient</b>	<b>476</b>	<b>39%</b>	<b>35.5%-41.7%</b>
	<b>Inactive</b>	<b>302</b>	<b>24%</b>	<b>21.7%-27.2%</b>
<b>Without Doctor-Diagnosed Arthritis</b>	<b>Recommended</b>	<b>1438</b>	<b>46%</b>	<b>43.9%-48.1%</b>
	<b>Insufficient</b>	<b>1299</b>	<b>40%</b>	<b>37.6%-41.6%</b>
	<b>Inactive</b>	<b>479</b>	<b>14%</b>	<b>13.0%-15.8%</b>

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) – 2003

Note: **Recommended Activity:** participating in moderate physical activity at least 5 days per week for at least 30 minutes or more per day, or vigorous physical activity on at least 3 days per week for at least 20 minutes per day, or both.

**Insufficient:** some activity but not enough to meet recommendations.

**Inactive:** not participating in any physical activity or exercise other than their regular job in the past 30 days.

**Table-7: Body Weight Status Among Kansas Adults With and Without Doctor-Diagnosed Arthritis:**

	Body Weight	Frequency	Weighted Percentage (%)	95% Confidence Interval
<b>Doctor-Diagnosed Arthritis</b>	<b>Normal/Underweight</b>	<b>353</b>	<b>29%</b>	<b>26.0%-31.8%</b>
	<b>Overweight</b>	<b>463</b>	<b>40%</b>	<b>36.6%-42.9%</b>
	<b>Obese</b>	<b>392</b>	<b>31%</b>	<b>28.5%-34.3%</b>
<b>Without Doctor-Diagnosed Arthritis</b>	<b>Normal/Underweight</b>	<b>1328</b>	<b>43%</b>	<b>40.9%-45.1%</b>
	<b>Overweight</b>	<b>1150</b>	<b>37%</b>	<b>35.1%-39.2%</b>
	<b>Obese</b>	<b>655</b>	<b>20%</b>	<b>18.2%-21.4%</b>

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) – 2003

Note: Normal/Underweight: BMI <25, Overweight: BMI between 25 and 29.9, Obese: BMI ≥ 30

**Table-8: Quality of Life Among Individuals With and Without Doctor-Diagnosed Arthritis:**

	<b>Quality of Life (Need Help to Handle Routine Needs)</b>	<b>Frequency</b>	<b>Weighted Percentage (%)</b>	<b>95% Confidence Interval</b>
<b>Doctor-Diagnosed Arthritis</b>	<b>Yes</b>	<b>122</b>	<b>25%</b>	<b>20.5%-29.1%</b>
	<b>No</b>	<b>340</b>	<b>75%</b>	<b>70.9%-79.5%</b>
<b>Without Doctor-Diagnosed Arthritis</b>	<b>Yes</b>	<b>69</b>	<b>14%</b>	<b>10.9%-17.6%</b>
	<b>No</b>	<b>388</b>	<b>86%</b>	<b>82.4%-89.1%</b>

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Table-9: Number of Days Mental Health Not Good**

	<b>Number of Days Mental Health Not Good</b>	<b>Frequency</b>	<b>Weighted Percentage (%)</b>	<b>95% Confidence Interval</b>
<b>Doctor-Diagnosed Arthritis</b>	<b>None</b>	<b>856</b>	<b>69%</b>	<b>66.6%-72.3%</b>
	<b>1-6 Days</b>	<b>174</b>	<b>15%</b>	<b>12.3%-16.8%</b>
	<b>7-14 Days</b>	<b>66</b>	<b>5%</b>	<b>3.5%-6.0%</b>
	<b>15-30 Days</b>	<b>154</b>	<b>11%</b>	<b>9.3%-13.2%</b>
<b>Without Doctor-Diagnosed Arthritis</b>	<b>None</b>	<b>2429</b>	<b>74%</b>	<b>71.8%-75.5%</b>
	<b>1-6 Days</b>	<b>534</b>	<b>16%</b>	<b>15.0%-18.1%</b>
	<b>7-14 Days</b>	<b>111</b>	<b>4%</b>	<b>2.8%-4.3%</b>
	<b>15-30 Days</b>	<b>196</b>	<b>6%</b>	<b>5.2%-7.3%</b>

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Table-10: Knowledge and Practice of Self-Management Strategies for Arthritis Among Adults with Doctor-Diagnosed Arthritis - 2003.**

<b>Awareness and Participation in Self-Management Programs</b>		<b>Frequency</b>	<b>Weighted Percentage</b>	<b>95% Confidence Interval</b>
<b>1. To your knowledge, are there educational courses or classes available in your community that could teach you how to manage problems related to your arthritis or joint symptoms?</b>	<b>Yes</b>	<b>439</b>	<b>49.2%</b>	<b>46.0%-53.5%</b>
	<b>No</b>	<b>420</b>	<b>50.3%</b>	<b>46.5%%-54.0%</b>
<b>2. Has a doctor or other health professional ever suggested you participate in an Arthritis Foundation program to help manage problems related to your arthritis or joint symptoms?</b>	<b>Yes</b>	<b>34</b>	<b>2%</b>	<b>1.4%-3.1%</b>
	<b>No</b>	<b>1218</b>	<b>98%</b>	<b>96.9%-98.5%</b>
<b>3. Have you Ever taken an education course or class to teach you how to manage problems related to your arthritis or joint symptoms?</b>	<b>Yes</b>	<b>118</b>	<b>9%</b>	<b>7.2%-10.5%</b>
	<b>No</b>	<b>1137</b>	<b>91%</b>	<b>89.5%-92.8%</b>
<b>4. Do you currently participate in physical activity or exercise to help manage problems related to your arthritis or joint symptoms?</b>	<b>Yes</b>	<b>452</b>	<b>36%</b>	<b>33.4%-39.4%</b>
	<b>No</b>	<b>794</b>	<b>64%</b>	<b>60.6%-66.6%</b>
<b>5. Do you currently participate in any support group to help manage problems related to your arthritis or joint symptoms?</b>	<b>Yes</b>	<b>39</b>	<b>3%</b>	<b>1.8%-3.7%</b>
	<b>No</b>	<b>1215</b>	<b>97%</b>	<b>96.2%-98.2%</b>

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Table-11: Health Care Access Among Individuals With Doctor-Diagnosed Arthritis in Different Age Groups**

	Age Groups	Health Care Access		Frequency	Weighted Percentage (%)	95% Confidence Interval
<b>Doctor-Diagnosed Arthritis</b>	<b>Younger Than 65 Years</b>	<b>Health Plan</b>	<b>Yes</b>	<b>669</b>	<b>86%</b>	<b>83.1%-88.9%</b>
			<b>No</b>	<b>107</b>	<b>14%</b>	<b>11.1%-16.9%</b>
		<b>Personal Doctor</b>	<b>Yes</b>	<b>688</b>	<b>88%</b>	<b>85.7%-90.9%</b>
			<b>No</b>	<b>90</b>	<b>12%</b>	<b>9.1%-14.3%</b>
		<b>Medical Cost</b>	<b>Yes</b>	<b>133</b>	<b>17%</b>	<b>13.7%-19.4%</b>
			<b>No</b>	<b>645</b>	<b>83%</b>	<b>80.6%-86.3%</b>
	<b>65 Years and Older</b>	<b>Health Plan</b>	<b>Yes</b>	<b>479</b>	<b>99%</b>	<b>97.7%-99.7%</b>
			<b>No</b>	<b>8</b>	<b>1%</b>	<b>0.3%-2.3%</b>
		<b>Personal Doctor</b>	<b>Yes</b>	<b>478</b>	<b>99%</b>	<b>97.4%-99.5%</b>
			<b>No</b>	<b>9</b>	<b>1%</b>	<b>0.4%-2.6%</b>
		<b>Medical Cost</b>	<b>Yes</b>	<b>21</b>	<b>4%</b>	<b>2.0%-5.9%</b>
			<b>No</b>	<b>466</b>	<b>96%</b>	<b>94.1%-98.0%</b>

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

Note: Health Care Access has been assessed using the 2003 Kansas BRFSS Health Care Access Questions asking respondents: If they had any health care coverage, a person whom they consider as their personal doctor or health care provider, and if there was a time in the past 12 months when they could not see a doctor when needed because of the cost.

**Table-12: Health Care Access Among Individuals With Doctor-Diagnosed Arthritis Gender Groups.**

	Gender Groups	Health Care Access		Frequency	Weighted Percentage (%)	95% Confidence Interval
<b>Doctor-Diagnosed Arthritis</b>	<b>Male</b>	<b>Health Plan</b>	<b>Yes</b>	<b>382</b>	<b>91%</b>	<b>87.6%-93.9%</b>
			<b>No</b>	<b>39</b>	<b>9%</b>	<b>6.1%-12.4%</b>
		<b>Personal Doctor</b>	<b>Yes</b>	<b>374</b>	<b>89%</b>	<b>85.3%-92.2%</b>
			<b>No</b>	<b>48</b>	<b>11%</b>	<b>7.8%-14.7%</b>
		<b>Medical Cost</b>	<b>Yes</b>	<b>41</b>	<b>9%</b>	<b>6.5%-12.6%</b>
			<b>No</b>	<b>381</b>	<b>91%</b>	<b>87.4%-93.5%</b>
	<b>Female</b>	<b>Health Plan</b>	<b>Yes</b>	<b>773</b>	<b>90%</b>	<b>87.9%-92.7%</b>
			<b>No</b>	<b>77</b>	<b>10%</b>	<b>7.3%-12.1%</b>
		<b>Personal Doctor</b>	<b>Yes</b>	<b>800</b>	<b>94%</b>	<b>92.4%-95.9%</b>
			<b>No</b>	<b>51</b>	<b>6%</b>	<b>4.1%-7.5%</b>
		<b>Medical Cost</b>	<b>Yes</b>	<b>113</b>	<b>14%</b>	<b>11.2%-16.4%</b>
			<b>No</b>	<b>738</b>	<b>86%</b>	<b>83.6%-88.8%</b>

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

**Table-13: Health Care Access Among Individuals With Doctor-Diagnosed Arthritis of Different Education Status:**

	Education Status	Health Care Access		Frequency	Weighted Percentage (%)	95% Confidence Interval
<b>Doctor-Diagnosed Arthritis</b>	<b>Less Than High School</b>	<b>Health Plan</b>	Yes	88	82%	72.2%-92.2%
			No	13	18%	7.8%-27.8%
		<b>Personal Doctor</b>	Yes	94	89%	79.9%-97.6%
			No	7	11%	2.3%-20.0%
		<b>Medical Cost</b>	Yes	15	18%	8.8%-26.7%
			No	86	82%	73.2%-91.2%
	<b>High School Graduate</b>	<b>Health Plan</b>	Yes	379	89%	85.3%-92.5%
			No	44	11%	7.5%-14.7%
		<b>Personal Doctor</b>	Yes	387	92%	88.7%-94.5%
			No	37	8%	5.5%-11.3%
		<b>Medical Cost</b>	Yes	59	15%	10.7%-18.5%
			No	365	85%	81.5%-89.3%
	<b>Some College</b>	<b>Health Plan</b>	Yes	337	90%	86.5%-93.2%
			No	42	10%	6.8%-13.5%
		<b>Personal Doctor</b>	Yes	347	91%	87.5%-94.3%
			No	32	9%	5.7%-12.5%
		<b>Medical Cost</b>	Yes	45	11%	7.7%-14.5%
			No	334	89%	85.5%-92.3%
	<b>College Graduate</b>	<b>Health Plan</b>	Yes	350	96%	93.0%-98.0%
			No	17	4%	2.0%-7.0%
		<b>Personal Doctor</b>	Yes	345	94%	92.0%-96.8%
			No	23	6%	3.2%-8.0%
		<b>Medical Cost</b>	Yes	35	8%	5.5%-11.3%
			No	333	92%	88.7%-94.5%

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003



**Table-14: Health Care Access Among Individuals With Doctor-Diagnosed Arthritis in Different Household Income Levels.**

	Annual Household Income Groups	Health Care Access		Frequency	Weighted Percentage (%)	95% Confidence Interval
<b>Doctor-Diagnosed Arthritis</b>	<b>Less Than \$25,000</b>	<b>Health Plan</b>	<b>Yes</b>	<b>311</b>	<b>80%</b>	<b>75.3%-85.1%</b>
			<b>No</b>	<b>68</b>	<b>20%</b>	<b>14.9%-24.7%</b>
		<b>Personal Doctor</b>	<b>Yes</b>	<b>348</b>	<b>91%</b>	<b>87.6%-94.5%</b>
			<b>No</b>	<b>32</b>	<b>9%</b>	<b>5.5%-12.3%</b>
		<b>Medical Cost</b>	<b>Yes</b>	<b>89</b>	<b>25%</b>	<b>19.8%-30.1%</b>
			<b>No</b>	<b>291</b>	<b>75%</b>	<b>69.9%-80.2%</b>
	<b>\$25,000-\$49,000</b>	<b>Health Plan</b>	<b>Yes</b>	<b>350</b>	<b>93%</b>	<b>89.8%-96.2%</b>
			<b>No</b>	<b>23</b>	<b>7%</b>	<b>3.8%-10.2%</b>
		<b>Personal Doctor</b>	<b>Yes</b>	<b>345</b>	<b>92.1%</b>	<b>88.9%-95.4%</b>
			<b>No</b>	<b>28</b>	<b>7.9%</b>	<b>4.6%-11.1%</b>
		<b>Medical Cost</b>	<b>Yes</b>	<b>38</b>	<b>10%</b>	<b>6.9%-13.5%</b>
			<b>No</b>	<b>335</b>	<b>90%</b>	<b>86.5%-93.1%</b>
	<b>\$50,000 and Above</b>	<b>Health Plan</b>	<b>Yes</b>	<b>303</b>	<b>97%</b>	<b>95.2%-99.2%</b>
			<b>No</b>	<b>9</b>	<b>3%</b>	<b>0.8%-4.8%</b>
		<b>Personal Doctor</b>	<b>Yes</b>	<b>291</b>	<b>92.7%</b>	<b>89.3%-96.1%</b>
			<b>No</b>	<b>22</b>	<b>7.3%</b>	<b>3.9-10.7%</b>
		<b>Medical Cost</b>	<b>Yes</b>	<b>13</b>	<b>5%</b>	<b>2.0%-7.1%</b>
			<b>No</b>	<b>300</b>	<b>95%</b>	<b>92.9%-98.0%</b>

Source: Kansas Behavioral Risk Factor Surveillance System (BRFSS) - 2003

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## Arthritis Community Taskforce membership:

American Association of Retired Persons, **Tim Edwards, Driver Safety Program Volunteer**

Arthritis Foundation – Kansas Chapter: **Dennis H. Bender, APR, President and CEO**

**Patricia Dick, MS, Executive Director, Area II**

**Valerie Fairchild, Program Director**

Arthritis Foundation – Western Missouri/Greater Kansas City Chapter –

**Debbie Cooper, Health and Exercise Coordinator**

**JoAnn Bushko, Health Education Coordinator**

**Suzanne Schrandt, J.D., Volunteer, Person with Arthritis**

Arthritis Foundation Support Group Leader – **Diana Jones, RN, Person with Arthritis**

Bloom and Associates Therapy, PA – **Carolyn Bloom, PT**

Johnson County Area Agency on Aging – **Linda Wright, RN, MPA, Director**

Johnson County Health Department – **Theresa Becker, RN, MS, Senior Citizen Education/Wellness Coordinator**

Kansas Association of Activity Directors – **Tina Ashford, CTRS, President**

Kansas Department on Aging – **Wilda J. Davison, Information and Referral Program Manager**

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University of Saskatchewan – **Nancy Gyurcsik, PhD, College of Kinesiology, formerly a faculty member at Kansas State University in the Department of Kinesiology**